

What is claimed is:

1. An optical transceiver module adapted for having multiple grounding paths with an associated electronic device for dissipation of electrostatic charge that develops on the module, the module comprising:

a base;

a printed circuit board;

a laser diode and a photo diode;

a pair of metallic latch members;

an upper housing and a lower housing; wherein

the upper housing and lower housing are mounted to an upper side and a lower side of the base and form multiple grounding paths with the electronic device, respectively, the upper housing electrically engaging with the latch members, the upper housing having spring tabs engaging with metallic housings of the laser and photo diodes, the upper housing further having openings through which hooks and handle portions of the latch members extend outwardly, the hooks being adapted to engage with the electronic device; and

a projection formed on the upper housing and engaging with a grounding path of the electronic device.

2. The optical transceiver module in accordance with claim 1, wherein the base is made of conductive material and has side walls, the side walls defining grooves and forming steps thereat.

3. The optical transceiver module in accordance with claim 1, wherein the base forms a protruding portion and a post, the printed circuit board has first and

second holes defined therein, a screw extending through the first hole to threadedly engage with the protruding portion, the post fitting in the second hole, the printed circuit board at the first and second holes being coated with conductive material electrically connecting with at least one grounding trace of the printed circuit board.

4. The optical transceiver module in accordance with claim 2, wherein each of the side walls of the base includes a forward side wall, a rearward side wall and a U-shaped wall between the forward and rearward side walls, the grooves each being defined between a corresponding rearward side wall and a corresponding U-shaped wall, the steps each being formed below and outwardly from a corresponding U-shaped wall.

5. The optical transceiver module in accordance with claim 1, wherein the base has a front panel, and each of the upper and lower housings has a front edge abutting against a rear face of the front panel.

6. The optical transceiver module in accordance with claim 1, wherein the lower housing is mounted to the base by extending a screw through the lower housing to threadedly engage with the base.

7. An optical transceiver module adapted for having multiple grounding paths with an associated electronic device for dissipation of electrostatic charge that develops on the module, the module comprising:

- a base;
- a printed circuit board;
- a laser diode and a photo diode;
- a pair of metallic latch members;

an upper housing and a lower housing; wherein

the upper housing and lower housing are mounted to an upper side and a lower side of the base and form multiple grounding paths with the electronic device, respectively, the upper housing electrically engaging with the latch members, the upper housing having spring tabs engaging with metallic housings of the laser and photo diodes, the upper housing further having openings through which hooks and handle portions of the latch members extend outwardly, the hooks being adapted to engage with the electronic device;

a projection formed on the upper housing and engaging with the electronic device as a grounding path for dissipation of electrostatic charge on the housing;

a projection structure formed on the lower housing and engaging with the electronic device as a grounding path for dissipation of electrostatic charge on the housing.

8. The optical transceiver module in accordance with claim 6, wherein each of the upper housing and the lower housing is formed by stamping a single piece of metallic plate.

9. An electrical module comprising:

a conductive base with a printed circuit board thereon;

grounding traces formed on said printed circuit board;

a conductive housing assembly enclosing said base and said printed circuit board;

a pair of conductive latches fastened to the base and electrically engaged with the housing assembly;

protrusions formed on said housing assembly; wherein

said grounding traces establish internal grounding paths, and the latches and the protrusions establish external grounding paths.

2025-04-20 04:10